REMARKS

Summary of the Amendment

Upon entry of the above amendment, claims 24-26 will have been canceled and claims 1 and 27 will have been amended. Accordingly, claims 1-117 will be pending with claims 41-92 and 102-117 being withdrawn and with claims 1, 39 and 93 being in independent form.

Summary of the Official Action

In the instant Office Action, the Examiner reiterated the Restriction Requirement, withdrew claims 41-92 and 102-117. Finally, the Examiner rejected claims 1-40 and 93-101 over the art of record. Applicant submits that the rejections have been overcome, and respectfully requests reconsideration of the outstanding Office Action and allowance of the present application.

Restriction Requirement

The Examiner reiterated the previous restriction requirement, withdrew claims 41-92 and 102-117 from examination. Applicant traverses the Restriction Requirement for the reasons already made of record. Furthermore, Applicant requests rejoinder of at least withdrawn claims41-73 upon allowance of the non-withdrawn claims.

Traversal of Rejections Under 35 U.S.C. § 102

Over Finkelshtain

Applicant traverses the rejection of claims 1-15, 17-19 and 29-35 under 35 U.S.C. § 102(e) as

being clearly anticipated by US Patent Application Publication No. 2003/0099876 to FINKELSHTAIN et al.

The Examiner asserted that this document discloses all the features recited in these claims including a cathode exposed to the atmosphere. Applicant respectfully traverse this rejection.

Notwithstanding the Office Action assertions as to what this document discloses, Applicant submits that this document fails to disclose, or even suggest: inter alia, a refillable fuel cell wherein the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and wherein the at least one resealable opening comprises two resealable openings each in fluid communication with one of the first and second chambers, as recited in independent claim 1.

Applicant acknowledges that FINKELSHTAIN discloses a fuel cell which utilizes a cathode 14 that is exposed to atmospheric oxygen (see paragraph [0027]). However, it is clear from the drawings that FINKELSHTAIN does not disclose that the fuel cell is refillable, much less, that it is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and/or that the at least one resealable opening comprises two resealable openings each in fluid communication with one of the first and second chambers (claim 1).

Apparently, the Examiner is of the opinion that the preamble language "refillable fuel cell" can be properly ignored. Applicant disagrees. The pre-amble language reciting that the fuel cell is refillable clearly helps define the subject matter of the claim invention and is entirely consistent with a fuel cell having resealable openings. See page 4 of *Ex parte WASDEN*. Applicant notes that although this decision does not explicitly state that it is non-precedential or informative, this decision

is not listed in the USPTO website as being precedential.

Applicant also refers the Examiner to the attached decision in *Ex parte BAUDENDISTEL* which, although a non-precedential decision, explains that claim terms must be interpreted "consistent with applicants' specification" (see page 6 of the opinion). Thus, it would not be proper to construe the resealable openings as simply providing a "liquid-tight sealing" for the fuel cell. Resealable openings are openings which provide sealing when closed and which can be opened and closed more than once.

Furthermore, to the extent that the Examiner believes that he may construe a fuel cell having resealable openings "broadly" to encompass the disclosed device of FINKELSHTAIN, Applicant respectfully reminds the Examiner that the "broadest reasonable interpretation" standard must be one that "would be understood by one of ordinary skill in the art, taking into consideration the description of the applicant's specification. *In re Morris*, 127 F.3D 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997)". See page 3 of the attached non-precedential decision *Ex parte HADDAD*. Again, the specification describes the resealable openings as openings which provide sealing when closed and which can be opened and closed more than once, i.e., such as when the cartridge is attached to the fuel cell.

Finally, to the extent that the Examiner believes that the fuel cell shown in FINKELSHTAIN is capable of being refilled and/or inherently utilizes resealable openings, Applicant submits that the Examiner has failed to identify the disclosed "structure which is capable of performing the recited functional limitations" (see pages 4 and 5 of non-precedential decision *Ex parte ZDEPSKI*). Certainly, the fuel cell shown in FINKELSHTAIN has not been shown by the Examiner, or by the

actual disclosure of FINKELSHTAIN, to be capable of being refilled.

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading of FINKELSHTAIN.

Applicant further notes that, for an anticipation rejection under 35 U.S.C. § 102 to be proper, each element of the claim in question must be disclosed in a single document, and if the document relied upon does not do so, then the rejection must be withdrawn.

Because FINKELSHTAIN fails to disclose at least the above mentioned features as recited in independent claim 1, Applicant submits that this document does not disclose all the claimed features recited in at least independent claim 1.

Furthermore, Applicant submits that the above-listed dependent are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 102(e).

Over Thellmnnn

Applicant traverses the rejection of claims 1 and 7 under 35 U.S.C. § 102(b) as being clearly anticipated by US Patent No. 3,365,334 to THELLMANN.

The Examiner asserted that this document discloses all the features recited in these claims including a cathode exposed to the atmosphere. Applicant respectfully traverse this rejection.

Notwithstanding the Office Action assertions as to what this document discloses, Applicant

submits that this document fails to disclose, or even suggest: inter alia, a refillable fuel cell wherein the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and wherein the at least one resealable opening comprises two resealable openings each in fluid communication with one of the first and second chambers, as recited in independent claim 1.

Applicant acknowledges that THELLMANN discloses a fuel cell which utilizes an electrode plate 19 that is exposed to oxygen (see col. 2, lines 23-44). However, the Examiner is not correct that THELLMANN teaches a cathode exposed to the atmosphere. THELLMANN instead teaches to deliver oxygen (not air as asserted by the Examiner) via inlet pipe 21. Additionally, since the plates 16 and 19 are located within the walls 11, neither of the electrode plates 16 and 19 are exposed to the atmosphere. Finally, it is clear from the drawings that THELLMANN does not disclose that the fuel cell is refillable, much less, that it is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening (claim 1).

Applicant again asserts that the Examiner cannot properly ignore the preamble language "refillable fuel cell" which clearly helps define the subject matter of the claim invention and is entirely consistent with a fuel cell having resealable openings. See page 4 of *Ex parte WASDEN*. Applicant again submits that, consistent with *Ex parte BAUDENDISTEL*, the claim terms must be interpreted "consistent with applicants' specification", and that the "broadest reasonable interpretation" standard must be one that "would be understood by one of ordinary skill in the art, taking into consideration the description of the applicant's specification. *In re Morris*, 127 F.3D 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997)". See page 3 of *Ex parte HADDAD*.

Finally, to the extent that the Examiner believes that the fuel cell shown in the applied documents is capable of being refilled and/or inherently utilizes resealable openings, Applicant submits that the Examiner has failed to identify the disclosed "structure which is capable of performing the recited functional limitations" (see pages 4 and 5 of *Ex parte ZDEPSKI*).

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading of THELLMANN.

Applicant further notes that, for an anticipation rejection under 35 U.S.C. § 102 to be proper, each element of the claim in question must be disclosed in a single document, and if the document relied upon does not do so, then the rejection must be withdrawn.

Because THELLMANN fails to disclose at least the above mentioned features as recited in independent claim 1, Applicant submits that this document does not disclose all the claimed features recited in at least independent claim 1.

Furthermore, Applicant submits that the above-listed dependent are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 102(b).

Over Vielstich

Applicant traverses the rejection of claims 1, 5 and 7 under 35 U.S.C. § 102(b) as being clearly anticipated by US Patent No. 3,365,333 to VIELSTICH et al.

The Examiner asserted that this document discloses all the features recited in these claims including a cathode exposed to the atmosphere. Applicant respectfully traverse this rejection.

Notwithstanding the Office Action assertions as to what this document discloses, Applicant submits that this document fails to disclose, or even suggest: inter alia, a refillable fuel cell wherein the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and wherein the at least one resealable opening comprises two resealable openings each in fluid communication with one of the first and second chambers, as recited in independent claim 1.

Applicant acknowledges that VIELSTICH discloses a fuel cell which utilizes an oxidizing gas electrode 21 that is apparently exposed to atmospheric oxygen (see col. 4, lines 47-57). However, VIELSTICH does not disclose that the fuel cell is refillable, much less, that it is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening (claim 1).

Applicant again asserts that the Examiner cannot properly ignore the preamble language "refillable fuel cell" which clearly helps define the subject matter of the claim invention and is entirely consistent with a fuel cell having resealable openings. See page 4 of *Ex parte WASDEN*. Applicant again submits that, consistent with *Ex parte BAUDENDISTEL*, the claim terms must be interpreted "consistent with applicants' specification", and that the "broadest reasonable interpretation" standard must be one that "would be understood by one of ordinary skill in the art, taking into consideration the description of the applicant's specification. *In re Morris*, 127 F.3D 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997)". See page 3 of *Ex parte HADDAD*.

Finally, to the extent that the Examiner believes that the fuel cell shown in the applied documents is capable of being refilled and/or inherently utilizes resealable openings, Applicant submits that the Examiner has failed to identify the disclosed "structure which is capable of performing the recited functional limitations" (see pages 4 and 5 of *Ex parte ZDEPSKI*).

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading of VIELSTICH.

Applicant further notes that, for an anticipation rejection under 35 U.S.C. § 102 to be proper, each element of the claim in question must be disclosed in a single document, and if the document relied upon does not do so, then the rejection must be withdrawn.

Because VIELSTICH fails to disclose at least the above mentioned features as recited in independent claim 1, Applicant submits that this document does not disclose all the claimed features recited in at least independent claim 1.

Furthermore, Applicant submits that the above-listed dependent are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 102(b).

Over Shimizu

Applicant traverses the rejection of claims 1, 5, 7, 39 and 93 under 35 U.S.C. § 102(b) as being clearly anticipated by US Patent No. 4,562,123 to SHIMIZU et al.

The Examiner asserted that this document discloses all the features recited in these claims including a cathode exposed to the atmosphere. Applicant respectfully traverse this rejection.

Notwithstanding the Office Action assertions as to what this document discloses, Applicant submits that this document fails to disclose, or even suggest: inter alia, a refillable fuel cell wherein the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and wherein the at least one resealable opening comprises two resealable openings each in fluid communication with one of the first and second chambers, as recited in independent claim 1; inter alia, a cartridge, wherein the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid from and/or to the cartridge via the sealable openings, as recited in independent claim 39; and inter alia, that said first chamber has a first liquid transfer port and a second liquid transfer port, said first and second ports being normally closed, as recited in independent claim 93.

Applicant acknowledges that SHIMIZU discloses a fuel cell which utilizes an air electrode 21 (see col. 8, lines 49-60). However, SHIMIZU does not disclose that the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening (claim 1). Furthermore, SHIMIZU is silent with regard to a cartridge, wherein the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid from and/or to the cartridge via the sealable openings (claim 39). Finally, SHIMIZU is silent with regard to a first chamber having a first liquid transfer port and a second liquid transfer port, said first and second ports being normally closed (claim 93).

Applicant again asserts that the Examiner cannot properly ignore the preamble language

"refillable fuel cell" which clearly helps define the subject matter of the claim invention and is entirely consistent with a fuel cell having resealable openings. See page 4 of *Ex parte WASDEN*. Applicant again submits that, consistent with *Ex parte BAUDENDISTEL*, the claim terms must be interpreted "consistent with applicants' specification", and that the "broadest reasonable interpretation" standard must be one that "would be understood by one of ordinary skill in the art, taking into consideration the description of the applicant's specification. *In re Morris*, 127 F.3D 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997)". See page 3 of *Ex parte HADDAD*. Finally, to the extent that the Examiner believes that the fuel cell shown in the applied documents is capable of being refilled and/or inherently utilizes resealable openings, Applicant submits that the Examiner has failed to identify the disclosed "structure which is capable of performing the recited functional limitations" (see pages 4 and 5 of *Ex parte ZDEPSKI*).

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading of SHIMIZU.

Applicant further notes that, for an anticipation rejection under 35 U.S.C. § 102 to be proper, each element of the claim in question must be disclosed in a single document, and if the document relied upon does not do so, then the rejection must be withdrawn.

Because SHIMIZU fails to disclose at least the above mentioned features as recited in independent claims 1, 39 and 93, Applicant submits that this document does not disclose all the claimed features recited in at least independent claims 1, 39 and 93.

Furthermore, Applicant submits that the above-listed dependent are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite

additional features that further define the present invention.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 102(b).

Traversal of Rejections Under 35 U.S.C. § 103(a)

Over Thellmann and/or Vielstich and/or Shimizu with Lawrence

Applicant respectfully traverses the rejection of claims 24-28 and 36 under 35 U.S.C. § 103(a) as unpatentable over THELLMANN and/or VIELSTICH and/or SHIMIZU in view of US Patent Application Publication No. 2002/0197522 to LAWRENCE et al.

The Examiner asserted that these documents alone or in combination disclose or suggest all the features recited in these dependent claims. Applicant respectfully traverse this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests: inter alia, a refillable fuel cell wherein the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and wherein the at least one resealable opening comprises two resealable openings each in fluid communication with one of the first and second chambers, as recited in independent claim 1.

As explained above, while Applicant acknowledges that THELLMANN discloses a fuel cell which utilizes an electrode plate 19 that is exposed to oxygen (see col. 2, lines 23-44), the Examiner is not correct that THELLMANN teaches a cathode exposed to the atmosphere. THELLMANN instead teaches to deliver oxygen (not air as asserted by the Examiner) via inlet pipe 21.

Additionally, since the plates 16 and 19 are located within the walls 11, neither of the electrode plates 16 and 19 are exposed to the atmosphere. Finally, it is clear from the drawings that THELLMANN does not disclose that the fuel cell is refillable, much less, that it is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and/or two resealable openings each in fluid communication with one of the first and second chambers (claim 1).

With regard to VIELSTICH, Applicant acknowledges that VIELSTICH discloses a fuel cell which utilizes an oxidizing gas electrode 21 that is apparently exposed to atmospheric oxygen (see col. 4, lines 47-57). However, VIELSTICH does not disclose that the fuel cell is refillable, much less, that it is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and/or two resealable openings each in fluid communication with one of the first and second chambers (claim 1).

With regard to SHIMIZU, Applicant acknowledges that SHIMIZU discloses a fuel cell which utilizes an air electrode 21 (see col. 8, lines 49-60). However, SHIMIZU does not disclose that the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and/or two resealable openings each in fluid communication with one of the first and second chambers (claim 1).

LAWRENCE does not cure the deficiencies of THELLMANN, or VIELSTICH or SHIMIZU. First, there is no basis in the applied document to modify the fuel cells of THELLMANN, or VIELSTICH or SHIMIZU so as to utilize a cartridge as disclosed in LAWRENCE. Indeed, because each of THELLMANN, or VIELSTICH or SHIMIZU lack any resealable openings, these documents

teach away from a refillable fuel cell. Furthermore, although LAWRENCE teaches to use a resealable opening, i.e., port 88a (having two-way valve 128) on the fuel cell to allow connection to a cartridge (see paragraph [0096]), LAWRENCE, like each of THELLMANN, or VIELSTICH or SHIMIZU, has not been shown to disclose or suggest two resealable openings each in fluid communication with one of the first and second chambers.

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading or combination of THELLMANN, VIELSTICH and SHIMIZU with LAWRENCE.

Because the teachings of these documents fail to disclose or suggest at least the above mentioned features as recited in independent claim 1, Applicant submits that these documents do not disclose all the claimed features recited in at least independent claim 1.

Furthermore, Applicant submits that the above-listed dependent are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 103(a).

Over Thellmann and/or Vielstich and/or Shimizu

Applicant respectfully traverses the rejection of claims 15 and 16 under 35 U.S.C. § 103(a) as unpatentable over THELLMANN and/or VIELSTICH and/or SHIMIZU.

The Examiner asserted that these documents alone or in combination disclose or suggest all

the features recited in these dependent claims. Applicant respectfully traverse this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests: inter alia, a refillable fuel cell wherein the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and wherein the at least one resealable opening comprises two resealable openings each in fluid communication with one of the first and second chambers, as recited in independent claim 1.

As explained above, while Applicant acknowledges that THELLMANN discloses a fuel cell which utilizes an electrode plate 19 that is exposed to oxygen (see col. 2, lines 23-44), the Examiner is not correct that THELLMANN teaches a cathode exposed to the atmosphere. THELLMANN instead teaches to deliver oxygen (not air as asserted by the Examiner) via inlet pipe 21. Additionally, since the plates 16 and 19 are located within the walls 11, neither of the electrode plates 16 and 19 are exposed to the atmosphere. Finally, it is clear from the drawings that THELLMANN does not disclose that the fuel cell is refillable, much less, that it is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and/or two resealable openings each in fluid communication with one of the first and second chambers (claim 1).

With regard to VIELSTICH, Applicant acknowledges that VIELSTICH discloses a fuel cell which utilizes an oxidizing gas electrode 21 that is apparently exposed to atmospheric oxygen (see col. 4, lines 47-57). However, VIELSTICH does not disclose that the fuel cell is refillable, much less, that it is configured to at least one of receive fresh liquid and discharge spent liquid via at least

one resealable opening and/or two resealable openings each in fluid communication with one of the first and second chambers (claim 1).

With regard to SHIMIZU, Applicant acknowledges that SHIMIZU discloses a fuel cell which utilizes an air electrode 21 (see col. 8, lines 49-60). However, SHIMIZU does not disclose that the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and/or two resealable openings each in fluid communication with one of the first and second chambers (claim 1).

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading or combination of THELLMANN, VIELSTICH, and/or SHIMIZU.

Because the teachings of these documents fail to disclose or suggest at least the above mentioned features as recited in independent claim 1, Applicant submits that these documents do not disclose all the claimed features recited in at least independent claim 1.

Furthermore, Applicant submits that the above-listed dependent are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 103(a).

Over Thellmann and/or Vielstich and/or Shimizu with Finelli

Applicant respectfully traverses the rejection of claims 20 and 21 under 35 U.S.C. § 103(a) as unpatentable over THELLMANN and/or VIELSTICH and/or SHIMIZU in view of US Patent No.

3,880,809 to FINELLI.

The Examiner asserted that these documents alone or in combination disclose or suggest all the features recited in these dependent claims. Applicant respectfully traverse this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests: inter alia, a refillable fuel cell wherein the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and wherein the at least one resealable opening comprises two resealable openings each in fluid communication with one of the first and second chambers, as recited in independent claim 1.

As explained above, while Applicant acknowledges that THELLMANN discloses a fuel cell which utilizes an electrode plate 19 that is exposed to oxygen (see col. 2, lines 23-44), the Examiner is not correct that THELLMANN teaches a cathode exposed to the atmosphere. THELLMANN instead teaches to deliver oxygen (not air as asserted by the Examiner) via inlet pipe 21. Additionally, since the plates 16 and 19 are located within the walls 11, neither of the electrode plates 16 and 19 are exposed to the atmosphere. Finally, it is clear from the drawings that THELLMANN does not disclose that the fuel cell is refillable, much less, that it is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and/or two resealable openings each in fluid communication with one of the first and second chambers (claim 1).

With regard to VIELSTICH, Applicant acknowledges that VIELSTICH discloses a fuel cell which utilizes an oxidizing gas electrode 21 that is apparently exposed to atmospheric oxygen (see

col. 4, lines 47-57). However, VIELSTICH does not disclose that the fuel cell is refillable, much less, that it is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and/or two resealable openings each in fluid communication with one of the first and second chambers (claim 1).

With regard to SHIMIZU, Applicant acknowledges that SHIMIZU discloses a fuel cell which utilizes an air electrode 21 (see col. 8, lines 49-60). However, SHIMIZU does not disclose that the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and/or two resealable openings each in fluid communication with one of the first and second chambers (claim 1).

FINELLI does not cure the deficiencies of THELLMANN, VIELSTICH or SHIMIZU. Applicant acknowledges that FINELLI discloses a fuel container material (see Abstract). However, FINELLI does not disclose or suggest a fuel cell, much less, that the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and/or two resealable openings each in fluid communication with one of the first and second chambers (claim 1).

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading or combination of THELLMANN, VIELSTICH, SHIMIZU and FINELLI.

Because the teachings of these documents fail to disclose or suggest at least the above mentioned features as recited in independent claim 1, Applicant submits that these documents do not disclose all the claimed features recited in at least independent claim 1.

Furthermore, Applicant submits that the above-listed dependent are allowable at least for the

reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 103(a).

Over Thellmann and/or Vielstich and/or Shimizu with Delfino

Applicant respectfully traverses the rejection of claims 22 and 23 under 35 U.S.C. § 103(a) as unpatentable over THELLMANN and/or VIELSTICH and/or SHIMIZU in view of US Patent No. 3,288,644 to DELFINO.

The Examiner asserted that these documents alone or in combination disclose or suggest all the features recited in these dependent claims. Applicant respectfully traverse this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests: inter alia, a refillable fuel cell wherein the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and wherein the at least one resealable opening comprises two resealable openings each in fluid communication with one of the first and second chambers, as recited in independent claim 1.

As explained above, while Applicant acknowledges that THELLMANN discloses a fuel cell which utilizes an electrode plate 19 that is exposed to oxygen (see col. 2, lines 23-44), the Examiner is not correct that THELLMANN teaches a cathode exposed to the atmosphere. THELLMANN instead teaches to deliver oxygen (not air as asserted by the Examiner) via inlet pipe 21.

Additionally, since the plates 16 and 19 are located within the walls 11, neither of the electrode plates 16 and 19 are exposed to the atmosphere. Finally, it is clear from the drawings that THELLMANN does not disclose that the fuel cell is refillable, much less, that it is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and/or two resealable openings each in fluid communication with one of the first and second chambers (claim 1).

With regard to VIELSTICH, Applicant acknowledges that VIELSTICH discloses a fuel cell which utilizes an oxidizing gas electrode 21 that is apparently exposed to atmospheric oxygen (see col. 4, lines 47-57). However, VIELSTICH does not disclose that the fuel cell is refillable, much less, that it is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and/or two resealable openings each in fluid communication with one of the first and second chambers (claim 1).

With regard to SHIMIZU, Applicant acknowledges that SHIMIZU discloses a fuel cell which utilizes an air electrode 21 (see col. 8, lines 49-60). However, SHIMIZU does not disclose that the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and/or two resealable openings each in fluid communication with one of the first and second chambers (claim 1).

DELFINO does not cure the deficiencies of THELLMANN, VIELSTICH or SHIMIZU. Applicant acknowledges that DELFINO discloses a fuel cell having a metal casing 7 (see col. 4, lines 16-17). However, DELFINO does not disclose or suggest a fuel cell configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and/or two

resealable openings each in fluid communication with one of the first and second chambers (claim 1).

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading or combination of THELLMANN, VIELSTICH, SHIMIZU and DELFINO.

Because the teachings of these documents fail to disclose or suggest at least the above mentioned features as recited in independent claim 1, Applicant submits that these documents do not disclose all the claimed features recited in at least independent claim 1.

Furthermore, Applicant submits that the above-listed dependent are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 103(a).

Over Thellmann and/or Vielstich and/or Shimizu with Reiser

Applicant respectfully traverses the rejection of claims 37 and 38 under 35 U.S.C. § 103(a) as unpatentable over THELLMANN and/or VIELSTICH and/or SHIMIZU in view of US Patent Application Publication No. 2003/0207162 to REISER.

The Examiner asserted that these documents alone or in combination disclose or suggest all the features recited in these dependent claims. Applicant respectfully traverse this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests: inter alia, a

refillable fuel cell wherein the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and wherein the at least one resealable opening comprises two resealable openings each in fluid communication with one of the first and second chambers, as recited in independent claim 1.

As explained above, while Applicant acknowledges that THELLMANN discloses a fuel cell which utilizes an electrode plate 19 that is exposed to oxygen (see col. 2, lines 23-44), the Examiner is not correct that THELLMANN teaches a cathode exposed to the atmosphere. THELLMANN instead teaches to deliver oxygen (not air as asserted by the Examiner) via inlet pipe 21. Additionally, since the plates 16 and 19 are located within the walls 11, neither of the electrode plates 16 and 19 are exposed to the atmosphere. Finally, it is clear from the drawings that THELLMANN does not disclose that the fuel cell is refillable, much less, that it is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and/or two resealable openings each in fluid communication with one of the first and second chambers (claim 1).

With regard to VIELSTICH, Applicant acknowledges that VIELSTICH discloses a fuel cell which utilizes an oxidizing gas electrode 21 that is apparently exposed to atmospheric oxygen (see col. 4, lines 47-57). However, VIELSTICH does not disclose that the fuel cell is refillable, much less, that it is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and/or two resealable openings each in fluid communication with one of the first and second chambers (claim 1).

With regard to SHIMIZU, Applicant acknowledges that SHIMIZU discloses a fuel cell which

utilizes an air electrode 21 (see col. 8, lines 49-60). However, SHIMIZU does not disclose that the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and/or two resealable openings each in fluid communication with one of the first and second chambers (claim 1).

REISER does not cure the deficiencies of THELLMANN, VIELSTICH or SHIMIZU. Applicant acknowledges that REISER discloses a power system which also utilizes a fuel cell (see col. 4, lines 16-17). However, REISER does not disclose or suggest a fuel cell configured to at least one of receive fresh liquid and discharge spent liquid via at least one resealable opening and/or two resealable openings each in fluid communication with one of the first and second chambers (claim 1).

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading or combination of THELLMANN, VIELSTICH, SHIMIZU and REISER.

Because the teachings of these documents fail to disclose or suggest at least the above mentioned features as recited in independent claim 1, Applicant submits that these documents do not disclose all the claimed features recited in at least independent claim 1.

Furthermore, Applicant submits that the above-listed dependent claims are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 103(a).

Over Thellmann with Lawrence

Applicant respectfully traverses the rejection of claims 39, 40 and 93-101 under 35 U.S.C. § 103(a) as unpatentable over THELLMANN in view of LAWRENCE.

The Examiner asserted that these documents alone or in combination disclose or suggest all the features recited in these dependent claims. Applicant respectfully traverse this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests: inter alia, a cartridge, wherein the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid from and/or to the cartridge via the sealable openings, as recited in independent claim 39; and inter alia, that said first chamber has a first liquid transfer port and a second liquid transfer port, said first and second ports being normally closed, as recited in independent claim 93.

As explained above, while Applicant acknowledges that THELLMANN discloses a fuel cell which utilizes an electrode plate 19 that is exposed to oxygen (see col. 2, lines 23-44), the Examiner is not correct that THELLMANN teaches a cathode exposed to the atmosphere. THELLMANN instead teaches to deliver oxygen (not air as asserted by the Examiner) via inlet pipe 21. Additionally, since the plates 16 and 19 are located within the walls 11, neither of the electrode plates 16 and 19 are exposed to the atmosphere. Finally, it is clear from the drawings that THELLMANN does not disclose that the fuel cell is refillable, much less, that it is configured to at least one of receive fresh liquid and discharge spent liquid via sealable openings (claim 39) and/or that said first chamber has a first liquid transfer port and a second liquid transfer port, said first and second ports being normally closed (claim 93).

LAWRENCE does not cure the deficiencies of THELLMANN. Again, there is no basis in the applied document to modify the fuel cell of THELLMANN so as to utilize a cartridge as disclosed in LAWRENCE. Indeed, because THELLMANN lacks any sealable openings or ports, these documents teach away from a refillable fuel cell. Furthermore, although LAWRENCE teaches to use a resealable opening, i.e., port 88a (having two-way valve 128) on the fuel cell to allow connection to a cartridge (see paragraph [0096]), LAWRENCE, like THELLMANN, has not been shown to disclose or suggest that the refillable fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via sealable openings (claim 39) and/or that said first chamber has a first liquid transfer port and a second liquid transfer port, said first and second ports being normally closed (claim 93).

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading or combination of THELLMANN with LAWRENCE.

Because the teachings of these documents fail to disclose or suggest at least the above mentioned features as recited in independent claims 39 and 93, Applicant submits that these documents do not disclose all the claimed features recited in at least independent claims 39 and 93.

Furthermore, Applicant submits that the above-listed dependent are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 103(a).

Over Vielstich with Lawrence

Applicant respectfully traverses the rejection of claims 39, 40 and 93-101 under 35 U.S.C. § 103(a) as unpatentable over VIELSTICH in view of LAWRENCE.

The Examiner asserted that these documents alone or in combination disclose or suggest all the features recited in these dependent claims. Applicant respectfully traverse this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests: inter alia, a cartridge, wherein the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid from and/or to the cartridge via the sealable openings, as recited in independent claim 39; and inter alia, that said first chamber has a first liquid transfer port and a second liquid transfer port, said first and second ports being normally closed, as recited in independent claim 93.

As explained above, Applicant acknowledges that VIELSTICH discloses a fuel cell which utilizes an oxidizing gas electrode 21 that is apparently exposed to atmospheric oxygen (see col. 4, lines 47-57). However, VIELSTICH does not disclose that the fuel cell is refillable, much less, that it is configured to at least one of receive fresh liquid and discharge spent liquid via sealable openings (claim 39) and/or that said first chamber has a first liquid transfer port and a second liquid transfer port, said first and second ports being normally closed (claim 93).

LAWRENCE does not cure the deficiencies of VIELSTICH. Again, there is no basis in the applied document to modify the fuel cell of VIELSTICH so as to utilize a cartridge as disclosed in LAWRENCE. Indeed, because VIELSTICH lacks any sealable openings or ports, these documents teach away from a refillable fuel cell. Furthermore, although LAWRENCE teaches to use a

resealable opening, i.e., port 88a (having two-way valve 128) on the fuel cell to allow connection to a cartridge (see paragraph [0096]), LAWRENCE, like VIELSTICH, has not been shown to disclose or suggest that the refillable fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via sealable openings (claim 39) and/or that said first chamber has a first liquid transfer port and a second liquid transfer port, said first and second ports being normally closed (claim 93).

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading or combination of VIELSTICH with LAWRENCE.

Because the teachings of these documents fail to disclose or suggest at least the above mentioned features as recited in independent claims 39 and 93, Applicant submits that these documents do not disclose all the claimed features recited in at least independent claims 39 and 93.

Furthermore, Applicant submits that the above-listed dependent are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 103(a).

Over Shimizu with Lawrence

Applicant respectfully traverses the rejection of claims 40 and 94-101 under 35 U.S.C. § 103(a) as unpatentable over SHIMIZU in view of LAWRENCE.

The Examiner asserted that these documents alone or in combination disclose or suggest all the features recited in these dependent claims. Applicant respectfully traverse this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests: inter alia, a cartridge, wherein the fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid from and/or to the cartridge via the sealable openings, as recited in independent claim 39; and inter alia, that said first chamber has a first liquid transfer port and a second liquid transfer port, said first and second ports being normally closed, as recited in independent claim 93.

As explained above, Applicant acknowledges that SHIMIZU discloses a fuel cell which utilizes an air electrode 21 (see col. 8, lines 49-60). However, SHIMIZU does not disclose that the fuel cell is refillable, much less, that it is configured to at least one of receive fresh liquid and discharge spent liquid via sealable openings (claim 39) and/or that said first chamber has a first liquid transfer port and a second liquid transfer port, said first and second ports being normally closed (claim 93).

LAWRENCE does not cure the deficiencies of SHIMIZU. Again, there is no basis in the applied document to modify the fuel cell of SHIMIZU so as to utilize a cartridge as disclosed in LAWRENCE. Indeed, because SHIMIZU lacks any sealable openings or ports, these documents teach away from a refillable fuel cell. Furthermore, although LAWRENCE teaches to use a resealable opening, i.e., port 88a (having two-way valve 128) on the fuel cell to allow connection to a cartridge (see paragraph [0096]), LAWRENCE, like SHIMIZU, has not been shown to disclose or suggest that the refillable fuel cell is configured to at least one of receive fresh liquid and discharge spent liquid via sealable openings (claim 39) and/or that said first chamber has a first liquid transfer port and a second liquid transfer port, said first and second ports being normally closed (claim 93).

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by

any proper reading or combination of SHIMIZU with LAWRENCE.

Because the teachings of these documents fail to disclose or suggest at least the above mentioned features as recited in independent claims 39 and 93, Applicant submits that these documents do not disclose all the claimed features recited in at least independent claims 39 and 93.

Furthermore, Applicant submits that the above-listed dependent are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 103(a).

CONCLUSION

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious the Applicant's invention, as recited in each of the pending claims. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Further, any amendments to the claims which have been made in this response and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

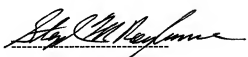
Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

The Commissioner is hereby authorized to refund excess payments and charge any additional

fee necessary to have this paper entered to Deposit Account No. 19-0089.

Should the Examiner have any questions or comments, he is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,
G. FINKELSHTAIN et al.



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Paper No. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS A. BAUDENDISTEL, SANJIV G. TEWANI, MARK W. LONG, JAMES E. DINGLE, LARRY M. OBERDIER, and DAVID K. LAMBERT

Appeal No. 2004-1553
Application No. 09/915,631

ON BRIEF

Before FRANKFORT, STAAB, and FLEMING, *Administrative Patent Judges*.

STAAB, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 1-20, all the claims currently pending in the application.

Appellants' invention pertains to a powertrain mount having a capacitive displacement sensor. As explained on pages 3-4 of appellants' specification, an output signal of the sensor is

utilized by a control device to adjust the damping characteristics of the mount. A further understanding of the invention can be derived from a reading of exemplary claims 1 and 19.

The sole reference applied by the examiner in the final rejection is:

Yamakado et al. (Yamakado) 5,726,886 Mar. 10, 1998

Claims 1-20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Yamakado.

Reference is made to appellants' main and reply briefs (Paper Nos. 7 and 9) and to the examiner's final rejection and answer (Paper Nos. 5 and 8) for the respective positions of appellants and the examiner regarding the merits of this rejection.

Discussion

Independent claims 1 and 10 are directed to a mount for a powertrain component of a motor vehicle comprising, among other things, a first plate "connected to" one of the powertrain component or a frame of the motor vehicle, and a second plate "connected to" the other of the powertrain component or the frame of the motor vehicle.

Claim 19, the only other independent claim on appeal, is directed to a system for controlling the damping characteristics of a motor vehicle powertrain mount comprising, among other things, a first positively charged plate "fixed relative to" one of the powertrain component or the frame of the motor vehicle, and a second, negatively charged plate "fixed relative to" the other of the powertrain component or the frame of the motor vehicle.

Yamakado, the alleged anticipatory reference, is directed, in pertinent part, to mounting devices for mounting a vehicle engine to a chassis wherein the mounting devices are controlled in dependence on the differential of acceleration of the engine, thereby to smooth the transmission of power from the engine (column 2, lines 54-60). With reference to Figure 17, a sensor 163 for measuring the differential of acceleration is mounted on an engine 161, the engine being supported by engine mounts 162a and 162b. The acceleration differential sensor 163 supplies a signal to a controller 167 which in turn controls the engine mounts 162a, 162b, presumably by changing the damping characteristics of the mounts. Figure 4 shows the configuration of a first embodiment of an acceleration differential sensor that may be used in the system of Figure 17. The Figure 4 sensor

> consists of a pendulum **1** attached to a casing **10a** using a joint **13** providing one degree of freedom of movement (i.e.[,] the pendulum **1** is constrained to move in one plane only). A coil **3** is fixed to the pendulum **1**, and a movable electrode **41** is attached at or adjacent the free end (moving direction) of the pendulum **1**. A casing **10** supports a magnet **2** so that the magnet is adjacent the coil **3**, and an electrode **42** is fixed to the casing **10**, facing the movable electrode **41**.
>
> . . . .
>
> As mentioned above, the pendulum **1** has one degree of freedom of movement (in the plane of the paper in FIG. **4**), so the sensor detects movement, and the differential of acceleration of that movement in that direction. The movable electrode **41** and electrode **42** fixed to the casing **10** form two pairs of electrodes representing two plate capacitors. The electrostatic capacitance C of such a plate capacitor is inversely proportional to the size of the gap between the capacitor plates . . . .
>
> . . . .
>
> . . . [T]he displacement of the pendulum **1** can be detected from the change C in the electrostatic capacitance between the two capacitors each formed by a movable electrode **41** and a fixed electrode **42**. [Column 7, lines 12-48.]

In rejecting the appealed claims as being anticipated by Yamakado, the examiner reads the claimed first plate on the movable electrode 41 of Yamakado's sensor and the claimed second plate on the fixed electrode 42 of Yamakado's sensor. With respect to the "connected to" limitations of independent claims 1 and 10, the examiner contends (answer, page 5)

> that plate 42 of the reference is in fact connected to a frame . . . . [P]late 42, while not being directly connected to the frame of the assembly (the frame being the portion located directly below the engine mounts), is indirectly connected to the frame at least through the controller component 167 and engine mounts 162a and 162b or subsequently, indirectly connected through the engine 161 and the engine mounts.
>
> Therefore, since applicant has not claimed that the second plate 42 is directly connected to a frame, this limitation is met by Yamakado et al.

Concerning the "fixed relative to" limitations of independent claim 19, the examiner takes the position (answer, page 6)

> that plate 41 of the reference is fixed, at least to some extent, to the powertrain component 161. As discussed in column 7[,] lines 11-15 of the reference, at least through joint 13, the pendulum 1, in which plate 41 is attached thereto, can only move in one direction, therefore plate 41 is fixed, at least somewhat, with respect to the powertrain equivalent component 161, i.e., fixed in the directions/planes the pendulum 1 is not allowed to move in.

Appellants argue (brief, pages 4-5) that the examiner is in error in asserting that the second plate 42 of Yamakado is "connected to" the frame of the vehicle and in asserting that the first plate 41 of Yamakado is "fixed relative to" one of the powertrain component or frame of the vehicle.

In general, words in a claim will be given their ordinary and accustomed meaning, unless it appears that the inventor used them differently, *Envirotech Corp. v. Al George, Inc.* 730 F.2d 753, 759, 221 USPQ 473, 477 (Fed. Cir. 1984), and a claim will be given its broadest reasonable interpretation, consistent with the specification. *In re Prater,* 415 F.2d 1393, 1404, 162 USPQ 541, 550 (CCPA 1969). Considering first the examiner's treatment of independent claims 1 and 10, the dictionary[1] contains several definitions of the verb "connect." Consistent with appellants' specification[2], and as normally applied in the structural sense, we consider that the claim terminology calling for a plate "connected to" a component or frame to connote a plate that is "joined or fastened together" with a component or frame, which is the past tense equivalent of a dictionary definition of the verb "connect." While we acknowledge that the verb "connect" may also mean "to associate or relate," we do not consider this broader definition to be the appropriate broadest reasonable

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[1]*Webster's II New Riverside University Dictionary,* copyright © 1984 by Houghton Mifflin Company.

[2]See page 3, lines 8-12, of the specification, where the mount assembly is described as being attached to the engine or transmission by a first fastener 14 and attached to the vehicle frame by a second fastener 15 such that the mount is interposed between the engine or transmission and the frame.

interpretation of the term "connected" as used in appealed claims 1 and 10 when the claims are read in light of appellants' specification. Based on this claim interpretation, we cannot support the examiner's strained position to the effect that plate 42 of Yamakado is indirectly connected to the vehicle frame through either the controller component 167 and the engine mounts 162a and 162b or, alternatively, through the engine 161 and the engine mounts.

We reach a similar conclusion with respect to the examiner's treatment of independent claim 19. Consistent with appellants' specification[3], and as normally applied in the structural sense, we consider that the claim terminology calling for a plate "fixed relative to" a component or frame to connote a plate that is "fastened" to or "made fast to" a component or frame, both of which are past tense equivalents of dictionary definitions of the verb "fix." On the other hand, we do not find any dictionary definition of the verb "fix" which would allow the phrase "fixed relative to" to encompass the sort of relationship disclosed in Figures 4 and 17 of Yamakado between either of the electrodes 41, 42 of sensor 163 and the frame of the vehicle. Based on this

[3] *Ib.*

claim interpretation, we cannot support the examiner's equally strained position to the effect that plate 41 of Yamakado is fixed at least to some degree to the engine or vehicle frame due to the circumstance that it can only move in one plane.

To summarize, we do not consider either one of the electrodes 41, 42 of Yamakado's sensor to be either "connected to" or "fixed relative to" the frame of the vehicle. It follows that we cannot sustain the examiner's rejection of claims 1-20 as being anticipated by Yamakado.

The decision of the examiner is reversed.

REVERSED

CHARLES E. FRANKFORT Administrative Patent Judge	)	
LAWRENCE J. STAAB Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
MICHAEL R. FLEMING Administrative Patent Judge	)	

LJS:hh

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Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte NADIM HADDAD, CHARLES N. ALCORN, JONATHAN MAIMON, LEONARD R. ROCKETT and SCOTT DOYLE

Appeal No. 2003-2013
Application No. 09/491,230

ON BRIEF

Before KIMLIN, JEFFREY T. SMITH and PAWLIKOWSKI, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 6-19.

Claim 6 is illustrative:

6. A resistor, comprising:

a first passivation layer overlying a semiconductor substrate having a plurality of transistors;

a first bottom contact and a second bottom contact formed through said first passivation layer at a first contact location and a second contact location, respectively;

a resistive film formed over said first passivation layer to serve as a resistor, wherein said resistive film has a first end and a second end;

a first top contact connecting said first bottom contact to said first end of said resistive film; and

a second top contact connecting said second bottom contact to said second end of said resistive film.

In the rejection of the appealed claims, the examiner relies upon the following reference:

Matthews	5,182,225	Jan. 26, 1993

Appellants' claimed invention is directed to a resistor wherein first and second top contacts connect first and second bottom contacts to first and second ends of a resistive film.

Appealed claims 6, 7, 11, 12 and 16-19 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Matthews. Claims 8-10 and 13-15 stand rejected under 35 U.S.C. § 103 as being unpatentable over Matthews.

We have thoroughly reviewed the respective positions advanced by appellants and the examiner. In so doing, we concur with appellants that the prior art cited by the examiner neither describes the claimed invention within the meaning of § 102 nor

renders it obvious within the meaning of § 103. Accordingly, we will not sustain the examiner's rejections.

The basis of the examiner's rejections over Matthews is finding that the gate and source regions of Matthews meet the requirements for the claimed first and second bottom contacts, respectively. In other words, it is the examiner's position that the gate and source of Matthews are contacts which meet the requirements of the presently claimed first and second bottom contacts. Appellants, on the other hand, contend that when one of ordinary skill in the art interprets the claim language in light of the specification, such a skilled artisan would not read the first and second bottom contacts as including the gate and source regions of Matthews.

We must acknowledge that there is a certain appeal in the examiner's position. Manifestly, the source and gate of Matthews are made of a conductive material and serve to pass current from one body to another, as urged by the examiner. However, it is well settled that claim language is given its broadest reasonable meaning during prosecution as it would be understood by one of ordinary skill in the art, taking into consideration the description of the applicant's specification. In re Morris,

127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). In the present case, appellants' specification describes that the contacts, or studs, are made from tungsten, aluminum, or copper, and the specification also discloses other areas of the device as gate and source regions (14a, 14b and 17a, 17b, respectively). Hence, we find it reasonable to conclude that one of ordinary skill in the art would not interpret the claimed first and second bottom contacts as inclusive of gate and source regions and, therefore, it is our opinion that the gate and source regions of Matthews are not a description of the claimed bottom contacts within the meaning of § 102. In our view, appellants' arguments during prosecution establish, via file wrapper estoppel, that the claimed first and second bottom contacts do not encompass gate and source regions.

As for the examiner's § 103 rejection, the examiner has not presented a rationale why it would have been obvious for one of ordinary skill in the art to modify Matthews to incorporate the claimed first and second bottom contacts in addition to the gate and source regions.

In conclusion, based on the foregoing, the examiner's decision rejecting the appealed claims is reversed.

REVERSED

EDWARD C. KIMLIN Administrative Patent Judge	)	
JEFFREY T. SMITH Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
BEVERLY PAWLIKOWSKI Administrative Patent Judge	)	

ECK:clm

Appeal No. 2003-2013
Application No. 09/491,230

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The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOEL ZDEPSKI, RAMA KALLURI, HOWARD PAGE
and WOLF-HASSO KAUBISCH

Appeal No. 1999-2306
Application 08/639,284

ON BRIEF

Before THOMAS, HAIRSTON and JERRY SMITH, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 1-28, which constitute all the claims in the application. An amendment after final rejection was filed on December 7, 1998, and was entered by the examiner.

The disclosed invention pertains to a method and apparatus for generating trickplay video streams, such as fast forward and fast reverse video streams, from a compressed normal play bitstream.

Representative claim 1 is reproduced as follows:

1. A computer-implemented method for generating trickplay streams from a compressed normal play bitstream, comprising:

receiving a compressed normal play bitstream, wherein said compressed normal play bitstream includes a plurality of intracoded frames and a plurality of intercoded frames;

extracting said intracoded frames from said compressed normal play bitstream, wherein said extracting includes storing said intracoded frames in a storage memory;

assembling said intracoded frames to form an assembled bitstream after said extracting;

decoding said assembled bitstream to produce a plurality of uncompressed frames; and

encoding said plurality of uncompressed frames after said decoding to produce a compressed trick play bitstream, wherein said compressed trick play bitstream includes only a subset of frames of said normal play bitstream.

The examiner relies on the following reference:

Lane et al. (Lane)	5,623,344	Apr. 22, 1997 (filed Aug. 19, 1994)

Claims 1-28 stand rejected under 35 U.S.C. § 102(e) as being anticipated by the disclosure of Lane.

Rather than repeat the arguments of appellants or the examiner, we make reference to the briefs and the answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejection advanced by the examiner and the evidence of anticipation relied upon by the examiner as support for the rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the briefs along with the examiner's rationale in support of the rejection and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that the disclosure of Lane fully meets the invention as set forth in claims 18, 20 and 21. We reach the opposite conclusion with respect to claims 1-17, 19 and 22-28. Accordingly, we affirm-in-part.

Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing

the recited functional limitations. RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.); cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

The examiner indicates how he reads the claimed invention on the disclosure of Lane [answer, pages 4-7]. Appellants nominally argue the rejection against the claims in eight separate groupings [brief, page 3, reply brief, page 2].

Appellants' first grouping of claims includes claims 1, 2, 4, 5, 8-10, 12, 13, 16, 17, 25 and 26. With respect to these claims, appellants argue that Lane does not disclose generation of a trickplay stream at all. Appellants also argue that Lane does not disclose the step of extracting intracoded frames from the normal play bitstream which includes storing the intracoded frames in a storage memory. Appellants also argue that it is not clear that Lane forms an assembled bitstream from the extracted intracoded frames. Finally, appellants argue that Lane does not disclose decoding an assembled bitstream to produce uncompressed frames and then

encoding the uncompressed frames to produce a compressed trickplay bitstream as claimed [brief, pages 4-7].

The examiner responds that Lane teaches that D, I, B and P frames of video data are stored and processed. The examiner also responds that the assembled I-frames of video in Lane form an assembled bitstream as claimed. The examiner also responds that Lane teaches the decoding of received data packets and an encoder for producing a compressed trickplay bitstream as claimed [answer, pages 7-10]. Appellants respond that there is no disclosure in Lane that the extracted I-frames are stored. Appellants also respond that decoding packets of data is not the same as decoding a bitstream, and the decoding/encoding in Lane occur after the trickplay bitstream is formed rather than before as claimed [reply brief, pages 3-5].

With respect to the first group of claims, we agree with the position argued by appellants. We note that Lane appears to have two separate teachings which are relied on by the examiner. First, Lane describes a prior art fast play technique in which the I-frames of a sequence of a video bitstream are extracted and assembled in a sequence. Second,

Lane describes his own technique for fast play in which normal and trickplay segments of data are geometrically arranged on a videotape. The examiner refers to the prior art technique for meeting the extracting and assembling I-frames steps of the claimed invention but refers to Lane's technique for teaching the decoding and encoding of this assembled bitstream. In our view, these disparate teachings of Lane cannot be combined as proposed by the examiner to find anticipation.

With respect to the prior art technique disclosed by Lane, we agree with the examiner that this disclosure would have suggested to the artisan that a trickplay bitstream could be obtained by extracting I-frames from a normal play bitstream and assembling these I-frames in sequence. We also agree with the examiner that the disclosure in Lane would have suggested to the artisan that the extracted I-frames are stored. The person familiar with this art would have understood that bitstream frames in the prior art could be stored before they are processed. Lane's disclosure that the D-frames of MPEG compression are stored separately from the normal MPEG bitstream is sufficient to anticipate the storage of such frames as argued by the examiner. Lane, however,

teaches nothing about performing any further operations on the assembled I-frames. As noted above, the decoding and encoding steps of Lane which are relied on by the examiner have nothing to do with this prior art technique of assembling I-frames. The fact that encoding and decoding steps were known in a different embodiment does not anticipate applying these steps to the prior art embodiment of Lane.

Since we find that the decoding and encoding steps of Lane are not applicable to the prior art I-frames sequencing disclosed by Lane, we do not sustain the examiner's rejection of claims 1, 2, 4, 5, 8-10, 12, 13, 16, 17, 25 and 26. Since we have not sustained the rejection with respect to independent claims 1, 9, 17 and 26, we also do not sustain the anticipation rejection with respect to dependent claims 3, 6, 7, 11, 14, 15 and 27.

We now consider independent claim 18. Claim 18 is the same as claim 1 except that the final decoding and encoding steps are replaced by the step of storing the assembled bitstream. Appellants' only additional argument with respect to claim 18 is that Lane does not teach that the assembled bitstream is stored. As discussed above, however, we agree

with the examiner that Lane teaches that frames of a bitstream are stored. We find that this teaching extends to bitstreams which are in frame form such as D, I, B and P frames or frames which have been assembled in sequence such as the I-frames taught by Lane. The decoding and encoding steps of claim 1 which were found not anticipated by Lane are not present in claim 18. Thus, we agree with the examiner that the invention of claim 18 is fully met by the disclosure of Lane.

The fact that Lane indicates that the prior art technique would have difficult problems to overcome does not eliminate this disclosure as a valid reference. The prior art does not indicate that the problems cannot be solved, only that the problems are difficult to solve. Anticipation would not be defeated by merely arguing the level of difficulty involved unless it could be shown that the teaching relied on was not enabling. Such a showing is not present here. Therefore, we sustain the rejection of claim 18 and of claims 20 and 21 which are grouped therewith.

Claim 19, which depends from 18, is separately argued. Appellants argue that Lane relates to actions performed on packet headers rather than bitstream sequence headers as

claimed. The examiner disagrees with appellants and points to the operation of Lane's preferred embodiment.

As noted above, we find that Lane's preferred embodiment has nothing to do with the prior art embodiment also disclosed by Lane. Therefore, the headers of the data packets in Lane have nothing to do with bitstream sequence headers sent along with I-frames. The admitted prior art of Lane does not indicate how the I-frames are to be extracted from the normal bitstream or what specific information is to be extracted and assembled. Therefore, we agree with appellants that Lane does not disclose the extraction of sequence headers from a bitstream and the assembling of sequence headers along with the I-frames to form an assembled bitstream as recited in claim 19. Therefore, we do not sustain the examiner's rejection of claim 19.

Claims 22 and 23 are separately argued by appellants. These claims recite that matrices in the normal bitstream are located and included in the assembled bitstream. Appellants argue that there is no disclosure of matrices in Lane. The examiner responds that digitized video signals in the MPEG format are known to include matrices and the assembly of a

sequence of I-frames would include these matrices.

We agree with appellants. As noted above, Lane discloses nothing about how to extract the I-frames from the normal bitstream and how to assemble these I-frames in sequence. The admitted prior art in Lane does not indicate that matrices are to be located and assembled in forming the I-frames bitstream in the prior art. Therefore, we do not sustain the examiner's rejection of claims 22 and 23.

Claims 24 and 25 are separately argued by appellants. Since these claims include the decoding and encoding steps as discussed above with respect to claim 1, we do not sustain the examiner's rejection of claims 24 and 25.

Claim 28 is separately argued by appellants. Specifically, appellants argue that Lane does not disclose the recited use of a memory stack to store and retrieve markers and coordinates in response to finding start codes for data blocks, extension blocks and I-frame headers. The examiner finds that the steps of claim 28 are inherently performed in Lane. Appellants dispute this finding.

We agree with appellants. The disclosure of Lane does not support the examiner's findings of anticipation. Claim 28

recites a plurality of steps which are clearly not disclosed by Lane and cannot properly be considered to be inherently performed in Lane. Therefore, we do not sustain the examiner's rejection of claim 28.

In summary, we have sustained the examiner's anticipation rejection with respect to claims 18, 20 and 21, but we have not sustained the rejection with respect to each of the other claims on appeal. Therefore, the decision of the examiner rejecting claims 1-28 is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

JAMES D. THOMAS Administrative Patent Judge	)
KENNETH W. HAIRSTON Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
JERRY SMITH Administrative Patent Judge	)

Appeal No. 1999-2306
Application 08/639,284

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte CHRISTOPHER L. WASDEN, AARON THORNTON, JEFF HARRISON, and JON BIRCK

Appeal 2008-1401
Application 10/438,738
Technology Center 3700

Decided: June 24, 2008

Before DONALD E. ADAMS, DEMETRA J. MILLS, and ERIC GRIMES, *Administrative Patent Judges.*

GRIMES, *Administrative Patent Judge.*

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 involving claims to a system for conducting hearing tests. The Examiner has rejected the claims as anticipated. We have jurisdiction under 35 U.S.C. § 6(b). We reverse.

BACKGROUND

"Traditionally, hearing tests are conducted in a clinical setting by a hearing health professional, such as an audiologist, who administers the hearing tests manually" (Spec. 3). Testing that "involve[s] providing a sound, such as a pure tone or speech, to the ear of the patient and

determining whether the patient can hear or distinguish the sound, are referred to collectively as 'audiometry,' or 'audiometric testing.'... Other types of hearing testing include acoustic immittance testing, which includes tympanometric testing and acoustic reflex testing, and otoacoustic emission testing" (Specification 3-4).

The Specification discloses a "system for conducting an audiometric test and at least one of, and preferably both of, an acoustic immittance test and an otoacoustic emission test in a first ear of a patient" comprising "a first insertion probe having a sealing surface for engaging the external auditory canal of the first ear and providing an airtight seal" and preferably comprising "a first transducer for providing an audiometric test sound and at least one of, and preferably both of, an acoustic immittance test sound and an otoacoustic emission test sound to the first ear through the first insertion probe" (*id.* at 9).

DISCUSSION

1. CLAIMS

Claims 1-5, 7-10, 12-16, 18 and 19 are pending and claims 12, 14-16, and 18 are on appeal. Claims 1-5, 7-10 and 19 have been indicated to be allowable and claim 13 stands as being objected to. Claim 14 is representative and reads as follows:

Claim 14: A system for conducting an audiometric hearing test and a second hearing test selected from the group consisting of an otoacoustic emission hearing test and an acoustic immittance hearing test in a first ear of a patient, said system comprising:

a first insertion probe comprising a sealing surface for engaging the external auditory canal of said first ear and providing an airtight seal within said canal;

a first transducer for providing to said first ear through said insertion probe an audiometric test sound and an acoustic immittance test sound;

a second transducer for receiving from said first ear through said insertion probe a second hearing test result sound comprising an acoustic immittance test result sound;

and a third transducer for receiving an otoacoustic emission sound.

2. ANTICIPATION

Claims 12, 14-16, and 18 stand rejected under 35 U.S.C. § 102(e) as anticipated by Stone.[1]

The Examiner finds that "Stone teaches a system that is capable of conducting an audiometric hearing test and a second, acoustic immittance or otoacoustic emission hearing test in a first ear of a patient" and that the disclosed system meets all the structural limitations of claim 14 (Answer 3).

Appellants argue that "Stone does not disclose a device with components for conducting three types of hearing tests (*i.e.*, audiometric, acoustic immittance and otoacoustic emission) in a single ear" (App. Br. 7). Appellants further argue that "the Examiner referred to microphone (50b), which is actually for testing the patient's *second ear*, in combination with ... elements 58a and 50a," both of which "relate to the test assembly for the patient's *first ear*," and that the "microphone (50b) of *Stone* is not configured to receive an otoacoustic emission sound from the patient's *first ear*, as claim 14 requires" (*id.*).

The Examiner reasons that the preamble's "recitation 'in a first ear' has not been given patentable weight. ... A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process

[1] Stone, US 6,368,288B2, Apr. 9, 2002.

steps or structural limitations are able to stand alone." (Answer 4, citing *In re Hirao*, 535 F.2d 67 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152 (CCPA 1951).)

Appellants argue that the "recited limitations in the body of claim 14 refer to the preamble terms, and the preamble terms give life, meaning and vitality to the claim as a whole" and thus the "the preamble recitations of claim 14 directing that the system be one for testing 'in a first ear' must be deemed a structural limitation of the claim" (Appeal Br. at 9-10).

We agree with Appellants that Stone does not support a prima facie case of anticipation for claim 14. In particular, we agree that the preamble is entitled to weight in determining the scope of the claim, and that the Examiner has not adequately explained how the reference shows that the third transducer functions in conjunction with a first ear.

"[A] claim preamble has the import that the claim as a whole suggests for it. In other words, when the claim drafter chooses to use *both* the preamble and the body to define the subject matter of the claimed invention, the invention so defined, and not some other, is the one the patent protects." *Bell Commc'ns Research Inc. v. Vitalink Commc'ns Corp.*, 55 F.3d 615, 620 (Fed. Cir. 1995).

We agree with Appellants that the preamble of claim 14 helps to define the subject matter of the claimed invention. The preamble of claim 14 recites a "system for conducting an audiometric hearing test and a second hearing test selected from the group consisting of an otoacoustic emission hearing test and an acoustic immittance hearing test in a first ear of a patient." In order to accomplish the result set out in the preamble – conducting different hearing tests in the same ear – the structure defined by

the body of the claim must be capable of administering the different tests to the same ear. Thus, it is reasonable to interpret claim 14 to require the "third transducer" to be capable of receiving an otoacoustic emission sound from the same ear (the "first ear") tested by the first and second transducers.

Reading claim 14 in light of the Specification confirms this interpretation. The Specification states that, in a preferred embodiment, the system entails a "first transducer [that] comprises at least one speaker for delivering test sounds to the first ear, and the second and third transducers comprise microphones for receiving, respectively, otoacoustic emission sounds and acoustic emission test result sounds from the first ear" (Spec. at 10, ll. 15-18). The Specification also that "an insertion probe of the present invention can be used to conduct an audiometric hearing test, an acoustic immittance hearing test, and an otoacoustic emission hearing test without changing probes and without removing the insertion probe from the ear" (Spec. at 13, ll. 5-8). We therefore interpret the preamble of claim 14 to limit the claimed system to one having a transducer for providing signal and two transducers for receiving signal in conjunction with the same ear.

Stone discloses an "acoustic coupling device for a hearing screening device comprising ... at least a first earpiece disposed proximate the cavity of at least one of said subject's ears having a stimulus input [i.e., first transducer] ..., the earpiece further including a response signal output [i.e., second transducer] adapted to receive and transmit the response signal" (Stone, abstract). With regard to the microphones cited by the Examiner as being the second and third transducers for receiving signal (i.e. 50a and 50b), Stone provides that "a stimulus is presented to each of the subject's ears via input leads 52*a*, 52*b* and earpieces 36*a*, 36*b*. The stimuli are sensed

and substantially simultaneously transmitted into and through leads 52*a*, 52*b* and communicated to microphones 50*a*, 50*b* via output leads 54*a*, 54*b*" (Stone at col. 4, l. 64 thru col. 5, l. 1; Fig. 3A).

Thus, in Stone's system, the "*a*" components stimulate and detect the response in one ear, while the "*b*" components stimulate and detect the response in the other ear. We agree with Appellants that the Examiner has not adequately shown that the cited reference discloses a third transducer that functions in conjunction with the same ear as the first and second transducer.

We therefore agree with Appellants that the Examiner has not set forth a valid prima facie case of anticipation of claim 14 based on the cited reference. We reverse the rejection of claim 14. Claims 12, 15, 16, and 18 depend on claim 14; we therefore reverse the rejection of these claims as well.

REVERSED

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